(No Model.)

A. T. ELFORD.

DEVICE FOR FLUSHING SEWERS.

No. 332,333. Patented Dec. 15, 1885.

FIG. 1.

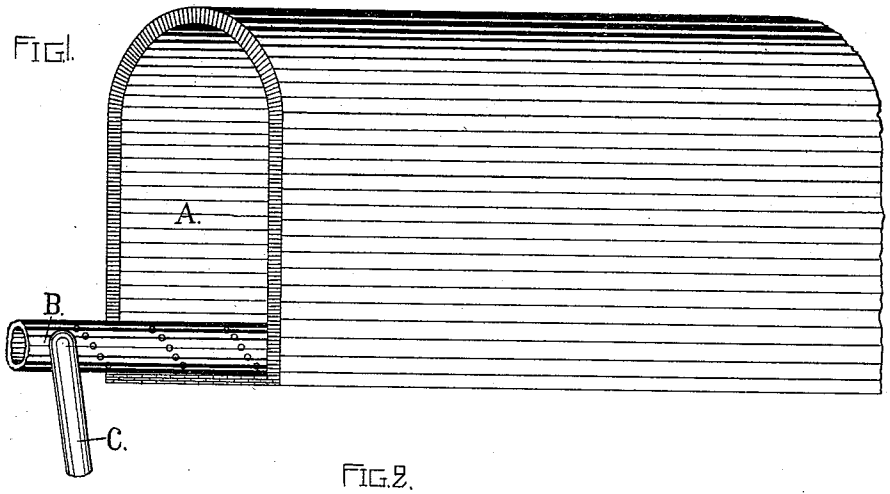


FIG. 2.

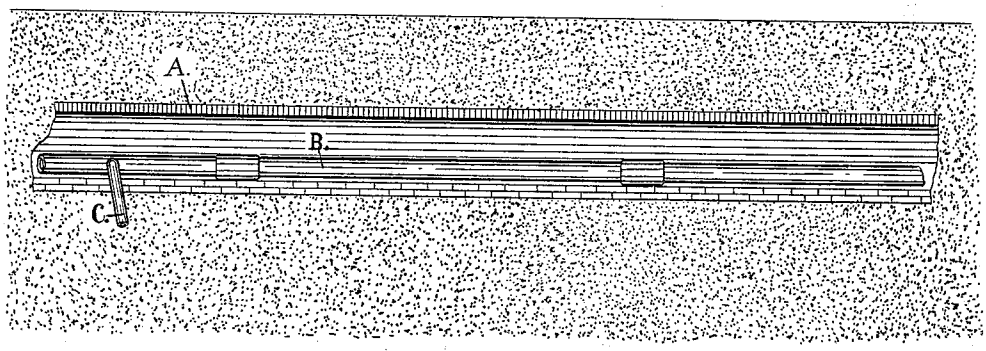
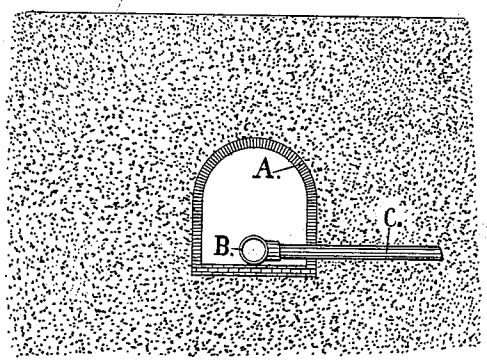


FIG. 3.



ATTEST.

John H. Redstone
L. E. Redstone.

INVENTOR,

Alfred. T. Elford

UNITED STATES PATENT OFFICE.

ALFRED T. ELFORD, OF SAN FRANCISCO, CALIFORNIA.

DEVICE FOR FLUSHING SEWERS.

SPECIFICATION forming part of Letters Patent No. 332,333, dated December 15, 1885.

Application filed July 31, 1885. Serial No. 173,168. (No model.)

To all whom it may concern:

Be it known that I, ALFRED T. ELFORD, a citizen of the United States, residing in the city and county of San Francisco, and State of California, have invented a new and useful Device for Flushing Sewers, of which the following is a specification.

My invention relates to improvements in devices for flushing sewers; and it consists in the use of a continuous or practically continuous perforated pipe extending along in the bottom of the sewer, and supplied with a sufficient number of service-pipes connected with the water-mains to keep a strong pressure in the same and force strong jets out to stir up the mud and sediment at the bottom, thus allowing it to be run out and discharged from the sewer.

The following is the construction of the same: Figure 1 is a perspective view showing a broken view of a sewer with the flushing-pipe and the service-pipe. Fig. 2 is a side sectional elevation; Fig. 3, an end sectional elevation of the same.

A represents the sewer; B, the flushing-pipe; C, the service-pipe.

The following is the operation of the same: The flushing-pipe B is perforated with holes of sufficient size to form a strong jet—say from an eighth to one-fourth of an inch, as may be required. I arrange these small holes or perforations spirally or in a screw form, so as to produce the best effect in stirring up the mud and sediment. I supply the flushing-pipe B with a service-pipe at each block or cross-street corner.

Where there is plenty of fall in the sewer, it is seldom liable to clog up with sediment; but a great portion of the sewerage of cities is deficient in this respect, and consequently the want of some cheap and convenient means of effectually flushing the sewers is greatly in demand.

The device described is always at hand, as by simply turning on the water at any obstructed section of the flushing-pipe the bottom can be fully stirred up and carried off by the current; or, where it is necessary, the service-pipes may be opened along the whole line of the sewers.

In order to allow the use of each block or section of the flushing-pipe separately, I generally construct the same so that each section or division will be of sufficient length to require the full capacity of one service-pipe to supply good strong jets from all the perforations. The sections should be so close together to appear as one continuous pipe through the whole length of the sewer; or they may be actually connected at the ends.

I am aware of Patent No. 240,655, in which a series of pipes having branch pipes are suspended by brackets at desired intervals upon the inner side wall of the sewer. This construction I desire to disclaim.

By placing the pipe along the bottom of the sewer the full force of the water is obtained to stir up and carry off the deposits, which cannot be successfully accomplished with the construction before referred to, since the branch pipes are located at a distance from the bottom of the sewer. Besides this, my device is much cheaper and more readily applied than that of the patent mentioned.

I am also aware of patent granted to M. J. Adams, dated September 18, 1877, and numbered 195,201, and do not seek to claim anything therein shown or described; but,

What I claim, and desire to secure by Letters Patent, is—

The combination, with a sewer, of a continuous or practically-continuous pipe located and extending along the bottom thereof, and a service-pipe, C, connecting with the pipe B at each street-crossing, substantially as described.

ALFRED T. ELFORD.

Witnesses:
JOHN H. REDSTONE,
L. E. REDSTONE.